

IN THE CLAIMS:

- 1 1. (Previously presented) A computerized data file system, comprising:
2 a first process that maintains a data file stored in a computer-readable memory; and
3 a second process that generates a first message requesting that said second process be
4 granted by said first process a plurality of tokens required for said second process to modify
5 at least one characteristic of said file stored in said computer-readable memory;
6 said first process generating a second message, in response to said first message, that
7 grants said tokens to said second process if said tokens are available for grant to said second
8 process.
- 1 2. (Original) A system according to claim 1, wherein:
2 said first process is resident at a server computer node, and said second process is
3 resident at a client computer node.
- 1 3. (Original) A system according to claim 1, wherein:
2 if any of said tokens are unavailable for grant to said second process as a result of
3 current grant of said tokens to at least one other process, said first process generates a third
4 message revoking the current grant of said tokens to said at least one other process.
- 1 4. (Original) A system according to claim 3, wherein:
2 said at least one other process, in response to said third message, generates a fourth
3 message making said tokens available for grant by said first process.
- 1 5. (Original) A system according to claim 3, wherein:
2 said first process resides in a first computer node;
3 said second process resides in a second computer node;
4 said at least one other process resides in at least one other computer node; and

5 said first computer, second computer, and at least one other computer nodes are net-
6 worked together and are remote from each other.

1 6. (Previously presented) A computer node, comprising:

2 a first process residing in said node that generates a first message that grants a set of
3 tokens, if the set of tokens is available for grant, to a second process that requested grant of
4 the set of tokens, the set of tokens being required for the second process to be able to modify
5 at least one characteristic of a file stored in a computer-readable memory within the computer
6 node.

1 7. (Previously presented) A node according to claim 6, wherein:

2 the second process resides in a remote computer node.

1 8. (Previously presented) A node according to claim 7, wherein:

2 one of the first and second processes resides in a server computer node and the other
3 of the processes resides in a client computer node.

1 9. (Original) A node according to claim 6, wherein:

2 if at least one token in the set of tokens is unavailable for grant because the at least
3 one token is currently granted to a third process, the first process also generates a second
4 message that revokes current grant of the at least one token to the third process prior to gen-
5 erating the first message.

1 10. (Original) A node according to claim 6, wherein:

2 the first message is generated by the first process in response to a request for the grant
3 of the set of tokens generated by the second process, the request specifying all tokens re-
4 quired for the second process to be able to modify the at least one characteristic of the file.

1 11. (Previously presented) A computer node, comprising:

2 a first process residing in said node that generates a request to a second process for
3 grant of a set of tokens required to enable the first process to modify at least one characteris-
4 tic of a file residing in a remote computer-readable memory.

1 12. (Original) A node according to claim 11, wherein:

2 the second process resides in a second computer node, and the memory is comprised
3 in said second node.

1 13. (Original) A node according to claim 11, wherein:

2 the set of tokens comprises all tokens required for the first process to be able to mod-
3 ify the at least one characteristic of the file.

1 14. (Previously presented) A network computer system, comprising:

2 a first computer node having a data file stored in a computer-readable memory; and

3 a second computer node that issues to the first computer node a first message request-
4 ing grant of a set of tokens required to carry out a modification of at least one characteristic
5 of said file stored in the first computer node;

6 the first computer node issuing a second message to the second computer node after
7 receipt of the first message, the second message granting the set of tokens to the first process
8 if the set of tokens is available for grant to the second process.

1 15. (Previously presented) A system according to claim 14, wherein:

2 the first computer node is a server node, and the second computer node is a non-
3 server node.

1 16. (Previously presented) A system according to claim 14, wherein:

2 the set of tokens comprises all tokens required to carry out the modification of the at
3 least one characteristic of the file.

1 17. (Previously presented) A system according to claim 14, wherein:
2 if at least one token in the set of tokens is unavailable for the grant because the at
3 least one token is currently granted, the first computer node waits to issue the first message
4 until after the first computer node receives a third message from a third computer node indi-
5 cating relinquishment of current grant of the at least one token.

1 18. (Previously presented) A system according to claim 17, wherein:
2 the at least one token comprises a plurality of tokens.

1 19. (Previously presented) Computer-readable memory containing computer-executable pro-
2 gram instructions, the instructions comprising:
3 first instructions which when executed permit a data file to be maintained in a com-
4 puter storage memory;
5 second instructions which when executed generate a first message requesting grant of
6 a plurality of tokens required to modify at least one characteristic of said file located in said
7 computer storage memory; and
8 third instructions which when executed generate a second message, in response to
9 said first message, that grants said tokens if said tokens are available for grant to said second
10 process.

1 20. (Previously presented) Computer-readable memory containing computer-executable pro-
2 gram instructions, the instructions comprising:
3 first instructions which when executed generate a first message that grants a set of
4 tokens, if the set of tokens is available for grant, to a requester of the set of tokens, the set of
5 tokens being required to permit the requester to be able to modify at least one characteristic
6 of a file stored in computer storage memory.

1 21. (Previously presented) Computer-readable memory containing computer-executable pro-
2 gram instructions, the instructions comprising:

3 first instructions that when executed generate a request for grant of a set of tokens
4 required to enable modification by an issuer of the request of at least one characteristic of a
5 file residing in storage memory.

1 22. (Previously presented) Computer-readable memory according to Claim 19, further com-
2 prising:

3 further instructions which when executed causes, if any of said tokens are unavailable
4 for grant as a result of current grant of said tokens, generation of a third message revoking
5 the current grant of said tokens.

1 23. (Previously presented) A computer-readable memory according to claim 22, wherein:
2 said further instructions, in response to said third message, generate a fourth message
3 making said tokens available for grant.

1 24. (Previously presented) Computer-readable memory according to claim 20, further com-
2 prising:

3 further instructions which when executed cause, if at least one token in the set of to-
4 kens is unavailable for grant because the at least one token is currently granted, generation of
5 a second message that revokes previous grant of the at least one token prior to generating the
6 first message.

1 25. (Previously presented) Computer-readable memory according to claim 20, wherein:
2 the first message is generated in response to a request for the grant of the set of tokens
3 generated, the request specifying all tokens required to be able to modify the at least one
4 characteristic of the file.

1 26. (Previously presented) Computer-readable memory according to claim 21, wherein:
2 the set of tokens comprises all tokens required to be able to modify the at least one
3 characteristic of the file.

1 27. (Previously presented) A computerized data file system, comprising:
2 means for maintaining a data file stored in a computer-readable memory; and
3 means for generating a first message requesting grant of a plurality of tokens required
4 to modify at least one characteristic of said file stored in said computer-readable memory;
5 means for generating a second message, in response to said first message, that grants
6 said tokens if said tokens are available for grant.

1 28. (Previously presented) A system according to claim 27, further comprising:
2 means for generating, if any of said tokens are unavailable for grant as a result of cur-
3 rent grant of said tokens, a third message revoking the current grant of said tokens.

1 29. (Previously presented) A system according to claim 28, further comprising:
2 means for generating, in response to said third message, a fourth message making
3 said tokens available for grant.

1 30. (Previously presented) A computerized method for coherently maintaining and modifying
2 a data file, comprising:
3 maintaining the data file in a computer-readable memory;
4 generating a first message requesting grant of a plurality of tokens required to modify
5 at least one characteristic of said file in said computer-readable memory; and
6 generating a second message, in response to said first message, that grants said tokens
7 if said tokens are available for grant.

1 31. (Previously presented) A method according to claim 30, further comprising:
2 if any of said tokens are unavailable for grant as a result of current grant of said to-
3 kens to at least one other process, generating a third message revoking the grant of said to-
4 kens.

1 32. (Previously presented) A method according to claim 31, wherein:

2 in response to said third message, a fourth message making said tokens available for
3 grant is generated.

1 33. (Previously presented) A computerized method for use in maintaining coherency of a
2 data file stored in a computer-readable memory, comprising:
3 generating a first message that grants a set of tokens, if the set of tokens is available
4 for grant, to a requester of the grant of the set of tokens, the set of tokens being required for
5 requester to be able to modify at least one characteristic of the file stored in the computer-
6 readable memory.

1 34. (Previously presented) A method according to claim 33, wherein:
2 if at least one token in the set of tokens is unavailable for grant because the at least
3 one token has been currently granted, the method also comprises a second message that re-
4 vokes current grant of the at least one token prior to generating the first message.

1 35. (Previously presented) A method according to claim 33, wherein:
2 the first message is generated in response to a request for the grant of the set of tokens
3 generated by the requester, the request specifying all tokens required for the requester to be
4 able to modify the at least one characteristic of the file.

1 36. (Previously presented) A computerized method for use in maintaining coherency of a
2 data file stored in a computer-readable memory, comprising:
3 generating a request for grant of a set of tokens required to enable modification of at
4 least one characteristic of the file stored in the computer-readable memory.

1 37. (Previously presented) A method according to claim 36, wherein:
2 the set of tokens comprises all tokens required to be able to modify the at least one
3 characteristic of the file.

1 38. (Previously presented) The system according to claim 1, wherein:
2 said second process, in response to receiving said second message, modifies said at
3 least one characteristic of said file stored in said computer-readable memory.

1 39. (Previously presented) The system according to claim 27, further comprising:
2 means for modifying said at least one characteristic of said file stored in said com-
3 puter-readable memory.

1 40 (Previously presented) The method according to claim 30, further comprising:
2 modifying said at least one characteristic of said file in said computer-readable mem-
3 ory.